

now United States Patent No. 6,295,153 B1, which claims priority to United States Provisional Patent Application Serial No. 60/087,948, filed June 4, 1998.--

IN THE CLAIMS:

Cancel in this Continuation Application original claims 39-79 of pending United States Application Serial No. 09/776,202 before calculating the filing fee.

Please add new claims 80 through 97:

80. (New) An apparatus for catalyzing a reaction on a substrate comprising:
a light source;
a computer-controlled micromirror positioned to redirect light from the light source toward the substrate; and
a reaction chamber, wherein light redirected by the micromirror catalyzes a chemical reaction proximate the substrate in the reaction chamber.

81. (New) The apparatus of claim 80, wherein the light source comprises a UV light.

82. (New) The apparatus of claim 80, further comprising a lens between the micromirror and the substrate.

83. (New) The apparatus of claim 82, wherein the lens is further defined as a lens system, and wherein the lens system changes the magnification of light reflected by the micromirror.

84. (New) The apparatus of claim 80, wherein the micromirror is further defined as a micromirror array.

85. (New) The apparatus of claim 80, wherein the light catalyzes the synthesis of a nucleotide base proximate the substrate.

86. (New) The apparatus of claim 80, wherein the light catalyzes the synthesis of an amino acid residue proximate the substrate.

87. (New) The apparatus of claim 80, wherein the light catalyzes a reaction involving a molecule proximate the substrate.

88. (New) The apparatus of claim 80, wherein the light crosslinks a molecule proximate the substrate.

89. (New) An apparatus for catalyzing a reaction on a substrate comprising:
a light source;
a micromirror positioned to redirect light from the light source toward the substrate;
a reaction chamber disposed about the substrate;
one or more reactant lines connected to the reaction chamber;
one or more reaction chemicals connected to the reactant lines; and
a computer connected to, and controlling, the micromirror and the supply of the one or more reaction chemicals to the reaction chamber via the reactant lines, wherein a light catalyzable reaction occurs proximate to the site where light produced by the light source and redirected by the micromirror strikes the substrate.

90. (New) The apparatus of claim 89, wherein the light source produces UV light.

91. (New) The apparatus of claim 89, further comprising a lens between the micromirror and the substrate.

92. (New) The apparatus of claim 91, wherein the lens is further defined as a lens system, and wherein the lens system changes the magnification of light reflected by the micromirror.

93. (New) The apparatus of claim 89, wherein the micromirror is further defined as a micromirror array.